

ABSTRACT OF THE DISCLOSURE

An integrated array of light sensitive pixels has a surface configured to receive the small particles within a distance effective for the particles to affect the pixel readout amplitude and where the pixels have an area on the order of the
5 area of the small particles to be directly imaged. A collimated light source is provided for illuminating the integrated array. A video display receives an output from the pixels to provide an image of the small particles directly contacting the surface of the array.